

## Notes on the *Philotheca myoporoides* Complex (Rutaceae) in Victoria

Andrew C. Rozefelds

Tasmanian Herbarium, GPO Box 252-04, Hobart, Tasmania, 7001, Australia. email: arozefelds@tmag.tas.gov.au

### Abstract

*Philotheca myoporoides* subsp. *petraeus* nov. is described from the Gippsland area of Victoria, and *P. myoporoides* subsp. *brevipedunculata* is recorded from the state for the first time.

### Introduction

The taxonomy of *Philotheca myoporoides* (DC) M.J.Bayly was most recently revised by Bayly (1998), who transferred the species from *Eriostemon*, in line with the classification of Wilson (1998), and recognised nine subspecies. Bayly (1998, p. 118) maintained a broad circumscription of *P. myoporoides*, even though he noted that most of the “taxa in the *Philotheca myoporoides* complex are both morphologically and geographically distinct”.

In this paper a new taxon from Mount Stewart in the Gippsland Region of Victoria is formally described. It was first collected in 1963. Material of this taxon was identified by Paul Wilson when preparing his (1970) revision of *Eriostemon*, as *E. myoporoides* [= *P. myoporoides*] with the annotation “I have seen no other material of this form”. Subsequently, the Flora of Victoria treatment of *Eriostemon* (Bayly 1999), which was prepared (but not published) prior to Bayly’s (1998) work, placed the Mount Stewart collections under *E. myoporoides* subsp. *myoporoides*, which was at the time of preparation, the only described subspecies of *E. myoporoides* recognised from the State. More information on this taxon was provided by Bayly (1998), who included a brief description and noted that the Mount Stewart collections “most closely resemble members of subsp. *brevipedunculata*” but did not “sit comfortably within the present circumscriptions of subspecies”. A new subspecies of *P. myoporoides* is here proposed for the Mt Stewart collections, as this is consistent with the current circumscription of taxa within this complex. This paper also provides the first record of *Philotheca myoporoides* subsp. *brevipedunculata* from Victoria. The specimens studied are all from the National Herbarium of Victoria (MEL).

***Philotheca myoporoides* subsp. *petraeus* Rozefelds subsp. nov.** a *Philotheca myoporoides* subsp. *myoporoides* foliis 8–16 mm longis, pedicellis 1–3(–4), atque a *Philotheca myoporoides* subsp. *brevipedunculata* pedunculis 2.2–3.0 mm longis, pedicellis usque 3mm longis differt.

*Type:* North west facing slope at the summit of Mt Stewart, East Gippsland, Victoria, J.Turner 1055, 18 Nov. 1995 (holotype MEL 2030756 (Fig. 1))

*Philotheca myoporoides* p. p. sensu M.J.Bayly, *Muelleria* 11: 118–119 (1998).

*Eriostemon myoporoides* subsp. *myoporoides* p. p. sensu M.J.Bayly, *Flora of Victoria* 4: 183 (1999).

An erect *shrub*, glabrous except for the staminal filaments. *Branches* green, terete, prominently glandular, verrucose. *Leaves* sessile, 8–16 mm long, 4–7 mm wide, coriaceous, concolorous in dried specimens, with midrib not extended into aristate tip, smooth on adaxial surface, conspicuous small glands on abaxial surface, margin tinged with red. *Inflorescence*, 1–3(–4)-flowered in axillary cymes, peduncle 2.2–3 mm long, bracts conspicuous, pedicel 2.5–3.1 mm expanding distally. *Flowers* 5-merous; *sepals* semiorbicular,



Figure 1. Holotype of *Philotheca myoporoides* subsp. *petraeus*.

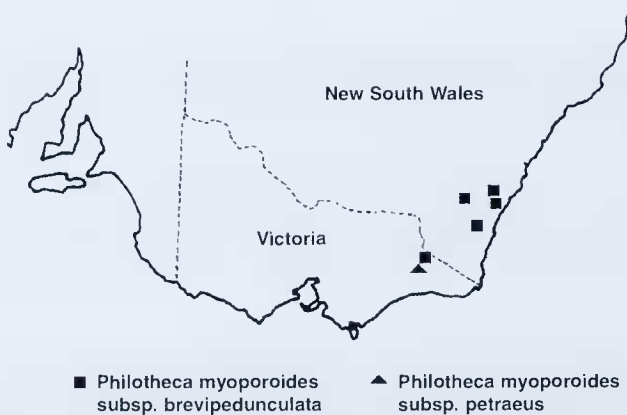


Figure 2. Map of south-eastern Australia showing the distribution of *Philotheca myoporoides* subsp. *brevipedunculata* ■ based upon MEL records, and the type locality of *P. myoporoides* subsp. *petraeus* ▲.

c. 1.0 mm long, c. 1.5 mm wide apex obtuse; *petals* elliptical, c. 6 mm long, 2.3–3.0 mm wide, white; *stamens* 10; *staminal filaments* slightly expanded at base, apex narrow and gradually tapering, margin near base ciliate, more pilose near apex; *anthers* bi-glandular with a short, white apiculum. *Ovary* c. 2.0 mm long, *carpels* 5, narrow, *style* c. 1.0 mm, *stigma* rounded. *Fruit* and seed not seen.

*Additional material examined:* VICTORIA: Mt Stewart [spelled 'Stuart' on specimen], near Millickmunjie Creek, East Gippsland, *K. Rogers s.n.* 13 Mar. 1963 (MEL 4133).

*Distribution and Habitat:* *Philotheca myoporoides* subsp. *petraeus* is presently known from the type locality at Mt Stewart, where it occurs in rocky areas. The subspecies is poorly known and current herbarium collections would suggest that it is rare, although a survey of surrounding areas would be useful to determine its distribution and abundance.

*Phenology:* Recorded flowering in November.

*Etymology:* The subspecies name is derived from the Latin *petraeus*, which alludes to its growing among rocks.

*Notes:* Bayly (1999) recognised the Mt Stewart population (= *P. myoporoides* subsp. *petraeus*) as a variant within *P. myoporoides* subsp. *myoporoides*. It differs from the type subspecies in that its leaves are 10–16 mm long, versus 30–155 mm long, and it has 1–3 (–4) flowers/per inflorescence versus 3–8 in the type subspecies (Bayly 1998).

Bayly (1998, p. 118) noted that subsp. *petraeus* superficially resembles subsp. *brevipedunculata* M.J. Bayly, but he did not discuss the similarities between these taxa. *Philotheca myoporoides* subsp. *brevipedunculata*, differs from subsp. *petraeus* in having very short peduncles, which are less than 2 mm long, and slender pedicels that are more than 4 mm long and usually unflowered inflorescences. Both subspecies have leaves that are similar in size and shape; and they also have staminal filaments that are distally pilose.

***Philotheca myoporoides* subsp. *brevipedunculata* M.J. Bayly, *Muelleria* 11:121–122 (1998)**

An erect shrub, glabrous except for the staminal filaments. *Branches* green, terete, prominently glandular, verrucose. *Leaves* sessile, 11–30 mm long, 4–7 mm wide, coriaceous, concolorous in dried specimens, apex acute, truncate, with midrib extended into mucronate tip, smooth on adaxial surface, conspicuous small glands on abaxial surface, margin sometimes tinged with red. *Inflorescence*, 1(–3)-flowered in axillary cymes, peduncle very short, 0–2 mm long, bracts conspicuous, pedicel slender, 4–8 mm long, tapering distally. *Flowers* 5-merous; *sepals* semiorbicular-broadly ovate, c. 1 mm long, c. 1.5 mm wide apex obtuse; *petals* elliptical, c. 6–7 mm long, 2.5–3.5 mm wide, white tinged with pink in bud; *stamens* 10; *staminal filaments* ciliate near base, sparsely pilose in upper half; *anthers* bi-glandular with a short, white apiculum. *Ovary* c. 0.75–1.0 mm long, *carpels* 5, narrow, *style* c. 1.5 mm, *stigma* rounded. *Cocci* erect, rostrate, *Seed* 5 mm long, shiny black, hilum long and thin.

*Habitat and Distribution:* Bayly (1998) recorded this subspecies from the Mount Donald area of Deua National Park (Type Locality), Round Hill south of Sassafras, Enchanted Hill north of Williamsdale and Little Forest north-west of Milton (based upon a pers. comm. from Paul Wilson). All of these records are from New South Wales, so the new record from Suggan Buggan in Victoria represents a significant range extension (Fig. 2). This subspecies has been collected from skeletal soils on rhyolite (Bayly, 1998). The Archer *s.n.* specimen was collected from a rocky ridge.

*Conservation Status:* Bayly (1998) suggested a conservation code (Briggs and Leigh 1988) of 3RC for *P. myoporoides* subsp. *brevipedunculata*, but with this significant range extension for the subspecies, further surveys may show that the subspecies is more common than currently recognised.

*Phenology:* *Philotheca myoporoides* subsp. *brevipedunculata* has been collected in flower in August–October and December–January.

*Notes:* The specimen (W.R.Archer *s.n.*) collected from near Suggan Buggan in north eastern Victoria is consistent with the type material in having short, reduced peduncles that are less than 2 mm long, and the mature flowers have long tapering pedicels that are more than 4 mm long. The anthers are distally pilose and the inflorescences are unflowered. The specimen differs from the type description in having slightly smaller leaves, 11–19 mm long versus 13–30 mm and 4–7mm versus 5–10 mm wide leaves.

*Material examined:* **NEW SOUTH WALES:** Holotype, Deua National Park, c. 13 km (direct) WSW of Moruya, prominent rocky knoll, c. 1.1 km NW of Coondella Trig. Point, SW slope of knoll, 35°57'S 149°54'E. Altitude 450 m, *R.O.Makinson* 1239 & *G.Butler*, 23 Nov. 1992 (MEL 717249); Prominent rocky peak 2 km due N of Coondella Trig. Point, Deua National Park, 35°55'40"S 149°54'20"E, altitude 500 m, *D.E.Albrecht* 4586, 21 Oct. 1990 (MEL 2012427); Prominence 1.9 km N. from Coondella Trig. Point, c. 16km WSW from Moruya, 35°55'50"S 149°54'20"E, altitude 480 m, *N.G.Walsh* 1883, 7 Dec. 1987 (MEL 691809); Peak 3 km due W of Bundogeran Hill, Deua National Park, 35°53'15"S 149°54'10"E, *D.E.Albrecht* 5314, 1 Jan. 1993 (MEL 2016787); Rocky Gully, northern slopes of Enchanted Hill, 13 km N of Williamsdale, 35°28'S 149°08'E, altitude 800 m, *B.J.Lepschi* 842, 2 Aug. 1992 (MEL 713459). **VICTORIA:** Rocky Range Faunal Reserve, on ridge running eastwest, 5 km SW from Suggan Buggan, north east Gippsland. *W.R.Archer s.n.*, 28 Aug. 1984 (MEL 666433).

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### References

- Bayly, M.J. (1998). Notes on the *Eriostemon myoporoides* (Rutaceae) species complex, including new names and a new generic placement in *Philotheca*. *Muelleria* **11**, 113–126.
- Bayly, M.J. (1999). *Eriostemon*. in Flora of Victoria **4**, 178–183.
- Briggs, J.D. and Leigh, J.H. (1988). 'Rare and Threatened Australian Plants.' Revised Edition. Special publication No. 14. (Australian National Parks and Wildlife Service: Canberra).
- Wilson, P.G. (1970). A taxonomic revision of the genera *Crowea*, *Eriostemon* and *Phebaliun*. *Nutysia* **1**, 1–155.
- Wilson, P.G. (1998). A taxonomic review of the genera *Eriostemon* and *Philotheca*. *Nutysia* **12**, 239–265.